

ABSTRACT

In a hybrid drive device which drives an electrical motor with an electrical power of a storage device and/or the electrical power of a generator driven by the engine, in general a secondary battery is used as a storage device. However running costs of the drive device are elevated due to the necessity to replace the storage device at fixed intervals due to a short battery component life. In addition, the low charging/discharging efficiency of a secondary battery limits improvements in fuel economy of the drive device.

The present invention provides a storage device comprising a condenser bank with a plurality of condenser cells connected in series, a parallel monitor which is connected in parallel to each condenser cell and which bypasses the charging current when the respective terminal voltages exceed a fixed value, and a switching converter with fixed current output characteristics which controls the charging electrical power to the condenser bank. This arrangement allows the present invention to realize improvements in fuel economy and reductions in running costs in a hybrid drive device.

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